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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/729,298

12/05/2003

Charles T. Bye

H0004408

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12/14/2006

HONEYWELL INTERNATIONAL INC.

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EXAMINER

NGUYEN, TAN QUANG

ART UNIT

PAPER NUMBER

3661

DATE MAILED: 12/14/2006

Please find below and/or attached an Office communication concerning this application or proceeding.



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APPLICATION NO./ CONTROL NO.	FILING DATE	FIRST NAMED INVENTOR / PATENT IN REEXAMINATION	ATTORNEY DOCKET NO.
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10/729,298

EXAMINER

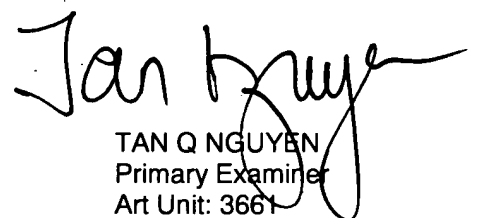
ART UNIT	PAPER
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20061209

DATE MAILED:

Please find below and/or attached an Office communication concerning this application or proceeding.

Commissioner for Patents


TAN Q NGUYEN
Primary Examiner
Art Unit: 3661

Office Action Summary

Application No.

10/729,298

Applicant(s)

BYE, CHARLES T.

Examiner

TAN Q. NGUYEN

Art Unit

3661

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 05 December 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-38 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-38 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 05 December 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date <u>12/05/03, 05/18/05</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAIL ACTION

Notice to Applicant(s)

1. This application has been examined. Claims 1-38 are pending.
2. The prior arts submitted on December 05, 2003 and May 18, 2005 have been considered

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. § 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claims 1-38 are rejected under 35 U.S.C. 102(b) as being anticipated by Lin (6,311,129).
5. As per claims 1, 4-6, 9 and 11-15, Lin discloses the invention as claimed which includes a plurality of radio frequency (RF) ranging system operable to computer a heading, a Kalman filter operable to calculate corrections to a navigation solution based on the data received from a plurality of sensors (see at least figure 1, the GPS navigation system), a mode logic to select an operating mode of the navigation and select which data the Kalman filter uses to calculate the corrections to the navigation solution (see at least figure 10, item 603, column 4, lines 23-33, and column 5, line 34 to column 7, line 16), and a navigation computation element operable to calculate the navigation solution based on data provided an inertial measurement unit and the

correction to the navigation solution provided by the Kalman filter (see at least figure 10, item 605 and the related text).

6. As per claims 2 and 3, Lin discloses that the plurality of sensors can be GPS, accelerometer, and gyroscope (see figures 1 and 9).

7. As per claims 7 and 8, Lin discloses that the navigation solution is 3D position, velocity and attitude (see at least figures 8-10).

8. As per claim 10, Lin further disclose that it is very important to includes the way to verify the validity of the assumed mathematical model (see at least column 15, line 49 to column 16, line 8).

9. With respect to claims 16-38, the limitations of these claims have been noted in the rejections above. They are therefore considered rejected as set forth above.

Conclusion

10. All claims are rejected.

11. The following references are cited as being of general interest: Lin (6,240,367) An et al. (6,408,245), Syrjarinne et al. (6,812,887), Riewe et al. (6,826,478) and Groves (6,900,760).

12. Any inquiry concerning this communication or earlier communications from the examiner should be directed to examiner Tan Q. Nguyen, whose telephone number is (571) 272-6966. The examiner can normally be reached on Monday-Thursday from 5:30 AM-4:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Thomas Black, can be reached on (571) 272-6956.

Any response to this action should be mailed to:

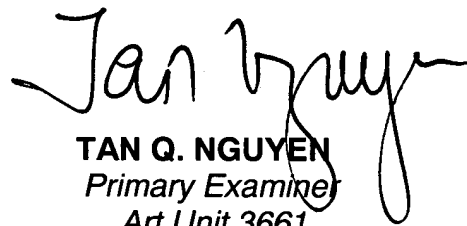
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Art Unit: 3661

or faxed to the Official Fax Center: (571) 273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

/tqn
December 9, 2006


TAN Q. NGUYEN
Primary Examiner
Art Unit 3661